

REMARKS

Claims 1-18 are pending in this application. By this Amendment, claims 1, 3, 7, 8, 10-14 and 16 are amended for clarity and new claims 17 and 18 are added. Except as noted below, the amendment to the claims are made to address informalities in, and to improve the clarity of the claims, and are not required to overcome any references cited by the Office Action. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Applicants wish to thank Examiner Zervigon for the courtesies extended to Applicants' representative, Ms. Baumgardner, during the April 13, 2000 personal interview.

I. THE CLAIMS DEFINE PATENTABLE SUBJECT MATTER

The Office Action rejects: 1) claims 1-11, 13 and 16 under 35 U.S.C. §102(b) as anticipated by U.S. Patent No. 4,572,759 to Benzing; 2) claim 12 under 35 U.S.C. §103(a) as unpatentable over Benzing in view of U.S. Patent No. 5,795,452 to Kinoshita et al.; 3) claim 14 under 35 U.S.C. §103(a) as unpatentable over Benzing in view of U.S. Patent No. 5,444,637 to Smesny et al. and further in view of U.S. Patent No. 5,587,205 to Saito; and 4) claim 15 under 35 U.S.C. §103(a) as unpatentable over Benzing in view of U.S. Patent No. 5,595,627 to Inazawa et al..

According to MPEP §2131, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claims." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claims, but

this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In the present Application, the Examiner has failed to establish the required *prima facie* case of anticipation. Applicants respectfully submit that Benzing, either alone or in combination with Kinoshita, Smesny, Saito or Inazawa, fails to teach or suggest each and every feature as set forth in claims 1-18. In particular, the cited references fail to teach or suggest a tube-shaped discharge electrode fashioned so as to enclose said plasma generation region and a first high-frequency electric power applicator that applies high-frequency electric power to said discharge electrode, as set forth in independent claims 1 and 16.

Claims 1 and 16 recite, *inter alia*, a tube-shaped discharge electrode fashioned so as to enclose said plasma generation region and a first high-frequency electric power applicator that applies high-frequency electric power to said discharge electrode. For example, high-frequency electric power is applied to the tube-shaped discharge electrode, thus a high-frequency electric field component oriented in the radial direction of the discharge electrode is formed. The discharge electrode is formed in a tube-shape and is fashioned so as to enclose the plasma generation region.

In contrast, Benzing discloses a plasma reactor 10 having a chamber wall 12 with a first end plate 14 and a second end plate 16. The first end plate 14 has a cathode mounting plate 22. When the device is activated, the chamber wall 12, the first end plate 14, the second end plate 16 and the mounting plate 22 are all held at one potential. The cathode is held at a second potential and a wafer stage is held at a third potential, whereby a triode effect is created. The chamber wall 12 is held at ground potential, the cathode 24 is powered by a first AC energy source and the wafer stage 20 is powered by a second energy source. (see Benzing, column 4, lines 48-64).

The Office Action asserts that Benzing's item 14, all figures, discloses a tube-shaped discharge electrode fashioned to enclose the plasma generation region and a first high-frequency electric power is applied to this discharge electrode. (see paragraph 4, Office Action). Applicants disagree with this assertion. First of all, Benzing's item 14 discloses a first end plate not a tube-shaped discharge electrode fashioned to enclose the plasma generation region, as set forth in claims 1 and 16. Secondly, Benzing's item 14 is electrically connected to the cathode mounting plate 22 and the chamber wall 12, thus item 14, the first end plate, is held at the same potential as the chamber wall 12, i.e., a ground potential. Thus Benzing's item 14 cannot be applied with a high-frequency electric power, as set forth in independent claims 1 and 16. Therefore, Benzing's system, in particular, item 14, is significantly different from that disclosed in the present invention. Furthermore, the cited references Kinoshita, Smesny, Saito and Inazawa all fail to make up for the deficiencies found in Benzing.

Applicants respectfully submit that independent claims 1 and 16 are allowable, for at least the reasons set forth above, over Benzing, either alone or in combination with Kinoshita, Smesny, Saito and Inazawa. Applicants further respectfully submit that dependent claims 2-15 are also allowable by virtue of their dependency on independent claim 1 for at least the reasons set forth above and for the additional features they recite. Accordingly, withdrawal of the rejection of claims 1-16 is respectfully solicited.

II. CONCLUSION

In view of the forgoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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